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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,894

06/06/2006

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EXAMINER

COOLEY, CHARLES E

ART UNIT

PAPER NUMBER

1723

MAIL DATE

DELIVERY MODE

08/08/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/581,894

Applicant(s)

MACKEL ET AL.

Examiner

Charles E. Cooley

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-11 and 13-16 is/are rejected.
- 7) ☒ Claim(s) 4 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 20060606.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

NON-FINAL OFFICE ACTION

1. This application has been assigned to Technology Center 1700, Art Unit 1723 and the following will apply for this application:

Please direct all written correspondence with the correct application serial number for this application to Art Unit 1723.

Telephone inquiries regarding this application should be directed to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 or to the Examiner at (571) 272-1139. All official facsimiles should be transmitted to the centralized fax receiving number 571-273-8300.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. § 119, which papers have been placed of record in the file.

Information Disclosure Statement

3. Note the attached PTO-1449 form submitted with the Information Disclosure Statement filed 6 JUN 2006.

Drawings

4. The sheets of drawings filed on 6 JUN 2006 are approved.

Specification

5. The substitute specification filed 6 JUN 2006 is approved and has been entered.
6. The amended Abstract of the Disclosure is objected to because:
 - a. it lacks substance as it is not an adequate and clear statement of the contents of the disclosure. A reading of the abstract does not provide the character of the subject matter covered by the disclosure. The abstract should be more comprehensive of the disclosed subject matter by mentioning the radially successive chambers (see claims 3 and 4).

Correction is required. See MPEP § 608.01(b).

7. The title is acceptable.

Claim Objections

8. Claims 2 and 6 are objected to because:
 - a. Claim 2, line 2: it appears --in-- should be inserted after "wherein" to clarify the wording.
 - b. Claim 6, line 4: insert --nozzle-type-- before "fanning-out" to provide proper antecedent basis for claims depending therefrom.

Correction is required.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1723

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Zettier et al. (US 4,410,319).

The patent to Zettier et al. '319 discloses the recited disk stack type centrifuge including drum 7; disk stack 4; moveable piston slide 6 that in an open position forms a radial gap between the piston slide 6 and drum top part 5 for passage of solids to solids discharge openings 12; the radial gap leading to the recited annular chamber in front of the solids discharge openings 12; the chamber being disposed in an outer region of the piston slide 6 and drum top part 5 as seen in the Figure; the chamber having an axial height greater than a height of the solids discharge openings 12 as seen in the Figure.

11. Claims 1-3, 5-11, and 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoffmann (US 3,550,843).

The patent to Hoffmann discloses the recited disk stack type centrifuge including drum 1; disk stack 5; moveable piston slide 9 that in an open position forms a radial gap between the piston slide 9 and drum top part 2 for passage of solids to solids discharge openings 8; the radial gap leading to the recited radially successive annular chambers (the radially interior chamber below 2 seen in Fig. 2 and the axially larger radially exterior chamber below 3 in as seen in Fig. 2); the chambers being disposed in front of the solids discharge openings 8; the chambers being disposed in an outer region of the piston slide 9 and drum top part 2 as seen in the Figures; the radially exterior chamber

(below 3) having an axial height greater than a height of the solids discharge openings 8 as seen in the Figures; the radially interior chamber below 2 disposed outside a groove for a sealing device in the drum top part 2 as seen in the Figures; the radially exterior chamber below 3 having a rounded cross-section as seen in the Figures.

Allowable Subject Matter

12. Claims 4 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims since the prior art does not teach or suggest the two chambers being connected by a bottleneck (claim 4) or the geometric configuration of the radially interior chamber (claim 12).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The cited prior art discloses disk stack type centrifuges.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Cooley whose telephone number is (571) 272-1139. The examiner can normally be reached on Mon-Fri. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CEC/
Charles E. Cooley
Primary Examiner
Art Unit 1723

3 August 2007